UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,539	10/25/2001	Benjamin J. Parker	1687 (15722)	5974

33272 7590 06/20/2005

SPRINT COMMUNICATIONS COMPANY L.P.
6391 SPRINT PARKWAY
MAILSTOP: KSOPHT0101-22100
OVERLAND PARK, KS 66251-2100

EXAMINER	
STRANGE, AARON N	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,539	PARKER ET AL.	
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendments to claims 1 and 8 are sufficient to overcome the rejections presented under 35 USC 112 2nd Paragraph in the Office action of 2/203/2005. Those rejections are hereby withdrawn.

Response to Arguments

2. Applicant's arguments filed 3/24/2005 have been fully considered but they are not persuasive.

3. With regard to claim 1, and Applicant's assertion that there is no motivation to combine Zhang and RAD, the Examiner respectfully disagrees. Applicant further asserts that "A human (i.e., the service user) need not remember or even know either the numerical address or the logical name associated with the service option resource since it is used only by and within the service selection gateways and their connected resource. While the service *user* may not need to know the numerical address or the logical name, the administrator of the service selection gateway *does* need to know one or the other. As admitted by Applicant (Page 2, Lines 13-22 of present Application), prior art service selection gateways had to be configured with the IP address, resulting in the need to manually reconfigure the device each time the address changed.

As discussed in the Office action of 2/23/2005, the system disclosed by RAD

provides two distinct advantages. First, logical names are more easily remembered by humans, such as a system administrator, making configuration of the service selection gateways much easier (RAD, Page 2). Second, the system disclosed by RAD maintains the mapping of logical names to numerical addresses, eliminating the need for the system administrator to manually update the mappings at the service selection gateway each time the mapping changes (RAD, Page 9, Lines 19-31).

4. With further regard to Applicant's assertion that there is no motivation to combine Zhang and RAD since "the address server of the present invention is fulfilling an entirely different purpose – which is to make reconfiguration of the service-option resources possible without making changes to the service selection gateway", the Examiner respectfully disagrees. As discussed above, the combination of Zhang and RAD fulfills this purpose. However, even if it did not fulfill this purpose, which it does, it also makes configuration of the service selection gateways easier by providing the system administrator easy to remember logical names representing the addresses of the service option resources. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

5. In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-3,8,10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications.

8. With regard to claim 1, Zhang discloses a network system comprising: a plurality of service-option resources (Col 5, Lines 44-50 and Fig 1, 14 &16) each having a respective numerical network address (IP address); an authorization server storing respective user profiles for identifying service-option resources to which each one of a plurality of users are authorized to use (AAA server) (Col 4, Lines 19-26); and a plurality of service selection gateways (Fig 1, 122, 144) coupled said service-option resources,

said address server, and said authorization server, each service selection gateway: receiving user traffic from a respective user directed to a nominal destination (service login request) (Col 4, Lines 56-58), determining if said user traffic directed to said nominal destination should be redirected to one of said service-option resources in response to a respective user profile (determine if access is authorized) (Col 5, Lines 6-12).

Zhang fails to specifically disclose an address server storing said numerical network addresses and a respective logical name corresponding to each numerical network address, said address server responding to queries by providing a numerical network address corresponding to a logical name contained in a respective query or querying said address server for a respective numerical network address fir redirecting said user traffic according to said respective logical name.

RAD Data Communications discloses a well-known system for translating logical names into numerical addresses. RAD discloses an address server storing said numerical network addresses (IP address) (Page 2) and a respective logical name corresponding to each numerical network address (domain name) (Page 3). The address server responds to queries by providing a numerical network address corresponding to a logical name contained in a query (Pages 7-8). Using this system to query for a numerical address corresponding to the logical name of the appropriate service-option resource would have been an advantageous addition to the system disclosed by Zhang. This system would have allowed the service-option resources to be referred to by a hostname in the service selection gateway, making it easier for

administrators to remember the names of the available resources when configuring the gateways. Additionally, changes in the IP address of the service-option resources would be handled by the DNS system, and would not require reconfiguration at the service selection gateway.

Therefore, it would have been obvious to one of ordinary skill in the art to use logical names to refer to the service-option resources and resolve them into IP addresses using the DNS system disclosed by RAD. This would have made it easier for administrators to remember the names of the available resources when configuring the gateways and eliminated reconfiguration of the service selection gateway when the IP address of the service-option resources changed.

9. With regard to claims 2 and 10, RAD Data Communications further discloses that said numerical network addressers are comprised of IP addresses (Page 2).

10. With regard to claims 3 and 11, Zhang further discloses that said service-option resources include subscription services and wherein said network apparatus further comprises a service selection dashboard through which said users obtain authorization for said subscription services (Col 3, Lines 64-66).

11. With regard to claim 8, Zhang discloses a method of forwarding user traffic in a computer network including a plurality of service-option resources each having a respective numerical network address (IP address), said method comprising the steps

of: storing respective user profiles for identifying service-option resources to which each one of a plurality of users are authorized to use (Col 4, Lines 19-26); receiving at a service selection gateway user traffic from a user in the form of a packet having a nominal destination (service login request) (Col 4, Lines 56-58); determining where said packet should be redirected in response to respective user profile (determine if access is authorized) (Col 5, Lines 6-12); and said service selection gateway redirecting said packet to said respective numerical network address (user is connected to service) (Col 5, Lines 44-50).

Zhang fails to specifically disclose an address server storing said numerical network addresses and a respective logical name corresponding to each numerical network address, said address server responding to queries by providing a numerical network address corresponding to a logical name contained in a respective query or querying said address server for a respective numerical network address to redirect according to said respective logical name.

RAD Data Communications discloses a well-known system for translating logical names into numerical addresses. RAD discloses an address server storing said numerical network addresses (IP address) (Page 2) and a respective logical name corresponding to each numerical network address (domain name) (Page 3). The address server responds to queries by providing a numerical network address corresponding to a logical name contained in a query (Pages 7-8). Using this system to query for a numerical address corresponding to the logical name of the appropriate service-option resource would have been an advantageous addition to the system

disclosed by Zhang. This system would have allowed the service-option resources to be referred to by a hostname in the service selection gateway, making it easier for administrators to remember the names of the available resources when configuring the gateways. Additionally, changes in the IP address of the service-option resources would be handled by the DNS system, and would not require reconfiguration at the service selection gateway.

Therefore, it would have been obvious to one of ordinary skill in the art to use logical names to refer to the service-option resources and resolve them into IP addresses using the DNS system disclosed by RAD. This would have made it easier for administrators to remember the names of the available resources when configuring the gateways and eliminated reconfiguration of the service selection gateway when the IP address of the service-option resources changed.

12. Claims 4-6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications in further view of Li et al. (US 6,119,165).

13. With regard to claims 4-6 and 12-14, while the system disclosed by Zhang in view of RAD Data Communications shows substantial features of the claimed invention (discussed above), it fails to disclose that said service option resources include at least

one firewall resource, at least one virus scanning resource, or at least one content-filtering resource.

Li teaches a system where client requests are passed through a proxy server that provides various services to the client. Li discloses that the services include firewall service, virus scanning service, and content filtering service (Col 5, Lines 5-23). These services are well known in the art and provide enhanced security to users of the system. They would have been an advantageous addition to the system disclosed by Zhang in view of RAD Data Communications since they would have allowed the users to utilize them in order to block viruses, objectionable content, and network attacks from outside the firewall.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide firewall service, virus scanning service, and/or content filtering service to the users of the system since it would have allowed the users to block viruses, objectionable content, and network attacks from outside the firewall.

14. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications in further view of Brown et al. (US 6,732,179).

15. With regard to claims 7 and 15, while the system disclosed by Zhang in view of RAD Data Communications shows substantial features of the claimed invention

(discussed above), it fails to disclose that said service option resources include at least one walled-garden resource.

Brown teaches the use of walled-garden resources to provide controlled access to network-based services such as newspapers, music, video, and stock prices (Col 7, Line 41 to Col 8, Line 14). This allows the content provides to sell subscriptions to the services in the walled garden and keep unauthorized users from accessing the services (Col 14, Lines 1-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use walled-garden resources in the system disclosed by Zhang in view of RAD Data Communications since it would have allowed content providers to sell subscriptions to the services in the walled garden and keep unauthorized users from accessing the services.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications in further view of Bero (US 6,769,031).

17. With regard to claim 9, while the system disclosed by Zhang in view of RAD Data Communications shows substantial features of the claimed invention (discussed above), it fails to disclose reconfiguring said service-option resources, resulting in changed numerical network addresses; and modifying said stored numerical network addresses on said address server; whereby said service selection gateway continues to redirect

said packets to a correct numerical network address after said reconfiguring step without requiring any changes to said service selection gateway.

Bero teaches a method of updating a DNS server when the IP address of a server changes. This allows the DNS server to maintain the correct mapping between the logical hostname and the current IP address of the server (Col 9, Line 63 to Col 10, Line 19). This way, any clients attempting to access the server do not have to make any changes in order to access the server since the DNS server will return the new IP address when a resolution request is made.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method taught by Bero to update the DNS server whenever the IP address of a service-option resource changes in the system taught by Zhang and RAD. This would have allowed the service selection gateway to properly redirect the packets without making any changes.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
6/13/2005

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100